RECEIVED
CENTRAL FAX CENTER
MAY 29 2007

Amendments to the Claims:

The claims below replace all prior versions and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A digital camera for capturing an image comprising:
an image sensor;
a capture trigger;
a capture buffer configured as a first memory location comprising a plurality of buffer locations, each of which is available for storing auxiliary image ~~data~~ frames; ~~and~~
a second memory location separate from the capture buffer, the second memory location configured to store image frames, wherein each image frame corresponds to an associated auxiliary image frame;
a processing system configured to ~~receive a plurality of auxiliary image frames from the image sensor and to store each auxiliary image frame in an available buffer location~~ continuously receive and process the auxiliary image frames during auxiliary mode of the digital camera and before the capture trigger is activated, to store the auxiliary frames in the first memory location, to detect activation of the capture trigger and receive a corresponding image frame from the image sensor, to store the corresponding image frame in ~~another available buffer location~~ the second memory location, to perform blur correction on the corresponding image frame using at least one auxiliary image frame, ~~and~~ to designate the buffer locations in which the corresponding image frame and the at least one auxiliary image frame are stored as unavailable for image storage until the blur correction is complete and to copy one or more auxiliary image frames and corresponding image frames to a fixed section of memory for performing image processing on the copied data.

2. (currently amended) The digital camera of claim 1 wherein the processing system further is configured to perform blur correction on the corresponding image

frame using a plurality of auxiliary image frames and to designate the buffer locations in which the plurality of auxiliary image frames are stored as unavailable for image storage until the blur correction is complete, wherein the second memory location is a fixed section of memory configured to be used for image processing and automatic functions and wherein the image frames are video image frames.

3. (original) The digital camera of claim 2 wherein the plurality of auxiliary image frames comprise at least one auxiliary image frame before the corresponding image frame and one auxiliary image frame after the corresponding image frame.

4. (original) The digital camera of claim 2 wherein the plurality of auxiliary image frames comprise a plurality of auxiliary image frames before the corresponding image frame.

5. (original) The digital camera of claim 1 wherein the processing system further is configured to perform the blur correction by:

determining a blur component from the at least one auxiliary image frame; and

removing the blur component from the corresponding image frame to determine a blur corrected image frame.

6. (original) The digital camera of claim 5 wherein the processing system further is configured to determine the blur component by integrating a blur correction function for the at least one auxiliary image frame.

7. (currently amended) The digital camera of claim 5 wherein the processing system further is configured to ~~remove the blur component from the corresponding image frame by dividing the at least one auxiliary image frame by the blur component to result in the blur corrected image frame~~ correct for blur according to a blur correction function $\int e^{-j2\pi}(ux_0(z) + vy_0(z))dz$, the blur correction function being integrated from 0 to z, with z being a selected number of buffer locations, wherein, x_0 represents motion in a first direction (x), y_0 represents motion is a second direction (y), and (u) and (v)

represent sampling integrals as a subject image moves across a field of view of the camera and the subject image is the image the user anticipates capturing.

8. (original) The digital camera of claim 1 wherein the processing system further is configured to detect a second activation of the capture trigger and to receive a second corresponding image frame from the image sensor, to store the second corresponding image frame in a second available buffer location, to perform second blur correction on the second corresponding image frame using at least one second auxiliary image frame, and to designate the buffer locations in which the second corresponding image frame and the at least one second auxiliary image frame are stored as unavailable for image storage until the second blur correction is complete

9. (original) The digital camera of claim 1 wherein the processing system further is configured to compress the corresponding image frame prior to storing the corresponding image frame in the another available buffer location with at least one compression algorithm selected from a group consisting of A-law compression, μ-law compression, and discard mode compression.

10. (currently amended) A method for capturing an image in a digital camera, ~~the digital camera comprising an image sensor, a capture trigger, a capture buffer comprising a plurality of buffer locations each of which is available for storing image data, and a processing system,~~ the method comprising:

~~storing each of a plurality of auxiliary image frames from the image sensor in an available buffer location;~~

using a capture buffer configured as a first memory location having a plurality of buffer locations, each of which is available for storing auxiliary image frames;

using a second memory location separate from the capture buffer, the second memory location configured to store image frames, wherein each image frame corresponds to an associated auxiliary image frame;

continuously receiving and processing the auxiliary image frames during auxiliary mode of the digital camera and before a capture trigger is activated;

storing the auxiliary frames in the first memory location;

detecting activation of the capture trigger at the processing system and storing a corresponding image frame from the image sensor in another available buffer location; ~~and~~

performing blur correction with the processing system on the corresponding image frame using at least one auxiliary image frame; and

copying one or more auxiliary image frames and corresponding image frames to a fixed section of memory for performing image processing on the copied data.

11. (currently amended) The method of claim 10 further comprising designating the buffer locations in which the corresponding image frame and the at least one auxiliary image frame are stored as unavailable for image storage until the blur correction is complete, wherein the second memory location is a fixed section of memory configured to be used for image processing and automatic functions and wherein the image frames are video image frames.

12. (original) The method of claim 10 further comprising performing blur correction on the corresponding image frame using a plurality of auxiliary image frames and designating the buffer locations in which the corresponding image frame and the plurality of auxiliary image frames are stored as unavailable for image storage until the blur correction is complete.

13. (original) The method of claim 12 wherein using a plurality of auxiliary image frames comprises using at least one auxiliary image frame before the corresponding image frame and at least one auxiliary image frame after the corresponding image frame.

14. (original) The method of claim 12 wherein using a plurality of auxiliary image frames comprises using a plurality of auxiliary image frames before the corresponding image frame.

15. (original) The method of claim 10 wherein performing the blur processing step comprises:

determining a blur component from the at least one auxiliary image frame; and

removing the blur component from the corresponding image frame to determine a blur corrected image frame.

16. (original) The method of claim 15 wherein the determining the blur component step comprises integrating a blur correction function for the at least one auxiliary image frame.

17. (currently amended) The method of claim 15 wherein removing the blur ~~component from the corresponding image frame to determine the blur corrected image frame comprises dividing the at least one auxiliary image frame by the blur component to result in the blur corrected image frame~~ includes a blur correction function $\int e^{-j2\pi}(ux_0(z) + vy_0(z))dz$, the blur correction function being integrated from 0 to z, with z being a selected number of buffer locations, wherein, x_0 represents motion in a first direction (x), y_0 represents motion is a second direction (y), and (u) and (v) represent sampling integrals as a subject image moves across a field of view of the camera and the subject image is the image the user anticipates capturing.

18. (currently amended) The method of claim 10 further comprising:

detecting a second activation of the capture trigger at the processing system and storing a second corresponding image frame from the image sensor in a second another available buffer location; and

performing blur correction with the processing system on the second corresponding image frame using at least one second auxiliary image frame.

19. (original) The method of claim 10 further comprising compressing the corresponding image frame prior to storing the corresponding image frame in the another available buffer location with at least one compression algorithm selected from a group consisting of A-law compression, µ-law compression, and discard mode compression.

20. (currently amended) A method for capturing an image in a digital camera, ~~the digital camera comprising an image sensor, a capture trigger, a first section of memory, a second section of memory, and a processing system,~~ the method comprising:

~~storing each of a plurality of auxiliary image frames from the image sensor in the first section of memory;~~

using a capture buffer configured as a first memory location having a plurality of buffer locations, each of which is available for storing auxiliary image frames;

using a second memory location separate from the capture buffer, the second memory location configured to store image frames, wherein each image frame corresponds to an associated auxiliary image frame;

continuously receiving and processing the auxiliary image frames during auxiliary mode of the digital camera and before a capture trigger is activated;

storing the auxiliary frames in the first memory location;

detecting activation of the capture trigger at the processing system and storing a corresponding image frame from the image sensor in the second section of memory; ~~and~~

copying one or more auxiliary image frames and corresponding image frames to a fixed section of memory for performing image processing on the copied data; and

performing blur correction with the processing system on the corresponding image frame using at least one of the plurality of auxiliary image frames in the first section of memory.